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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/754,981	01/05/2001	Arnaud Dufournier	33854-PCT-USA-A-070337.02	5441

7590 03/27/2003

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EXAMINER

JENKINS, JERMAINE L

ART UNIT	PAPER NUMBER
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2855

DATE MAILED: 03/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/754,981

Applicant(s)

DUFURNIER ET AL.

Examiner

Jermaine Jenkins

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 12 and 13 is/are rejected.
- 7) ☒ Claim(s) 8-11 and 14 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-7, 12, & 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boesch (6,118,369) in view of Dufournier et al (6,397,670).

In regards to claims 1-4, 12 & 13 Boesch teach a tire diagnostic system comprising wheels that are sensed by angular displacement sensors (22, 24, 26, 28). Each sensor outputs a frequency signal related to the rotational speed of the wheel that inputs to a low tire warning processor (100). The processor (100) evaluates the wheel rotational signals and provides a warning indicator (30) to alert the driver when a low tire pressure is detected (Column 2, lines 41-52). However, Boesch does not teach the calculation of a quantity characteristic of the dispersion of measuring signals.

Dufournier et al discloses a device for detecting a run-flat condition that teaches the calculation of a quantity of characteristic of dispersion of measuring signals such as the determination of rotational frequency of the wheel, the calculation of the energy of the measuring signals in at least one narrow frequency band centered on one of the first harmonics, and an alarm is set off when the energy satisfies a given threshold (Column 8, lines 32-43). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention

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was made to modify Boesch in view of Dufournier to provide an additional feature of calculating a quantity of characteristic of dispersion of measuring signals for the purpose of characterizing a means to generate signals oriented parallel to the axis of rotation of the tire and rim assembly.

With respect to claim 5, Dufournier et al teaches the calculation of a quantity of characteristic of dispersion of measuring signals such as the determination of rotational frequency of the wheel, the calculation of the energy of the measuring signals in at least one narrow frequency band centered on one of the first harmonics (Column 8, lines 32-43).

With respect to claims 6 & 7, Dufournier et al teaches the calculation of a quantity of characteristic of dispersion of measuring signals such as the determination of rotational frequency of the wheel, the calculation of the energy of the measuring signals in at least one narrow frequency band centered on one of the first harmonics, and an alarm is set of when the energy satisfies a given threshold (Column 8, lines 32-43).

Allowable Subject Matter

3. Claims 8-11 & 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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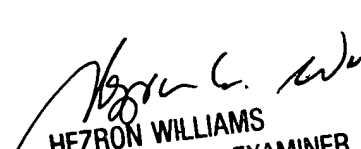
U.S. Patent 6,034,595 (Yanase) – a method for alarming decrease in tire air-pressure wherein the alarm is generated when internal pressure of the tire has decreased based on rotational speed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jermaine Jenkins whose telephone number is 703-305-3839. The examiner can normally be reached on Monday-Friday 8am-430pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on 703-305-4705. The fax phone numbers for the organization where this application or proceeding is assigned are 703-306-7382 for regular communications and 703-305-3839 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-3431.

Jermaine Jenkins
A.U. 2855
JJ
March 21, 2003


HEZRON WILLIAMS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800